

CRISIS FANTASY AS A TECHNIQUE
OF SELECTING TEST ANXIETY OR
COMMUNITY COLLEGE STUDENTS

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DEDICATION

To my grandparents and parents for making it possible
for me to continue my higher education.

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Abstract of Dissertation Presented to the Graduate
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GUIDED FANTASY AS A TECHNIQUE
IN REDUCING TEST ANXIETY IN
COMMUNITY COLLEGE STUDENTS

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The purpose of this study was to determine the
efficacy of a guided fantasy technique as a treatment for
reducing test anxiety among community college students.

Fifty students in an introductory psychology course
who reported high test anxiety were chosen randomly as
subjects for this study. They were divided into three
basic groups. The first group received the experimental
treatment of relaxation training, guided fantasy about
test anxiety, and group counseling. The second group
received relaxation training and group counseling. The
third group received no experimental treatment.

The test anxiety instruments were used for measuring
test anxiety before and after treatment: the Test Anxiety
Questionnaire and the Alperin-Spahr Achievement Anxiety

2011. The group baseline was used to determine the fantasy level floor or high of the subjects.

Both of the treatment groups received five one-hour sessions over a five week period. Test anxiety measurements were taken before and after treatments. Performance increments, measured by changes in grades, were determined by comparing midterm grades to final examination grades.

There was one finding that was statistically significant and theoretically important. The experimental treatment groups, using guided fantasy, improved most in classroom performance compared to the other treatment and control groups.

CHAPTER I

INTRODUCTION

Test anxiety within an academic environment is a greatly concerned phenomenon. The such anxiety on the part of the student has been shown to affect adversely both the academic performance and the well being of the student. One kind of anxiety which has been of concern to educators is test anxiety. Although relaxation training, individual counseling, group counseling, study habit guidance, implication therapy, systematic desensitization, hypnosis and cognitive inhibition have worked with varying degrees of success in reducing test anxiety, little has been accomplished toward increasing test performance. This two-dimensional aspect of test anxiety has been an important consideration for those interested in managing test anxiety and predicting future success in an academic setting.

The use of imagery in counseling is varied. One specific type of imagery is the "guided fantasy." This technique has increased performance of a task, brought insight to a problem, alleviated the distortions of

reality, clarified behavioral functioning, facilitated internalization, offered alternative sources of action, and reduced the anxiety of a present situation. Several studies have indicated that the efficacy of a guided fantasy technique depends on the individual's ability to fantasize.¹ The Tamm Assessment Response of the Rorschach Inkblot Test demands the measurement of this ability, according to Matarone (1942). It seems plausible that test anxiety may be treated successfully by the application of the guided fantasy technique.

While test anxiety exists at all levels of education, it is particularly important as it affects the community college student. After the first two years of college, according to Sarason (1957), the effect of test anxiety on academic performance diminishes as a result of the repetition of the test taking experience. A search of the literature does not indicate that any attempt has been made to employ a guided fantasy technique as a treatment for test anxiety in community college students.

Salience for the Study

Test anxiety is a problem among community college students. Too often it results in poor test performances which have deleterious effects upon academic achievement. The frustration it engenders may very well discourage

students from perceiving better performance, or even planning future academic preparation. The guided fantasy technique offers a new approach toward overcoming this specific anxiety problem. Through participation in guided fantasy, the student may be able to use his own availability in modifying his test behavior.

The results of such an investigation may identify a procedure which community college instructors can use to cope more satisfactorily with anxiety over tests. Finally, the results gathered from this investigation may serve as a base for further research in the area of guided fantasy as related to test anxiety.

Purpose of the Study

The purpose of this study is to determine the efficacy of a guided fantasy technique as a treatment for reducing test anxiety among community college students. The following questions will be investigated:

1. Does guided fantasy about test anxiety reduce test anxiety?
2. Do tested high fantasizers improve significantly over tested low fantasizers when given a guided fantasy treatment to reduce test anxiety?

1. How would history about that study affect class performance, as measured by quizzes and final grades, in all the subject's classes?

CHAPTER II

A REVIEW OF RELATED LITERATURE

The review of literature related to the investigation is divided into several broad areas: (1) concepts of test anxiety, (2) concepts of fantasy, (3) concepts of guided fantasy, and (4) measures of test anxiety and fantasy. Definitions will be given under appropriate areas.

CONCEPTS OF TEST ANXIETY

Alpert and Haber (1960) defined test anxiety in two ways. The first, called "facilitating test anxiety," was a positive state of anxiety which helped a student perform better in an examination. The second, "debilitating test anxiety," interfered with a student's performance during an examination.

McNessie, Poline, and Spaulman (1965) stated that most students begin a test with some anxiety as a result of

think anxiously about the outcome of the test and thereby
with degree of motivation for achieving a "good" grade in
the course. As they progress through the test they inevitably
encounter some questions that are too difficult or
ambiguous for them to answer. Such items add to anxiety.
As they attack the succeeding items the anxiety or the
the delayed effects caused by the items which they have
failed to pass, interferes with their performance. As
an Einstein once, their behavior becomes frustration-
indicated, rather than unrestrained problem-solving behavior.

DeLamain (1972) described the characteristics of
anxiety in the educational process: (1) anxiety is con-
sidered a learnable reaction which has the properties of
a response, a cue or danger, and a drive. (2) anxiety is
internalized fear caused by the memory of painful past
experiences associated with punishment for the gratifi-
cation of an impulse. (3) anxiety is the classroom inter-
feres with learning, and whatever can be done to reduce
it should serve as a cue to learning. (4) test anxiety
is a near-universal experience, especially in this
country, which is a test-giving and test-conscious culture,
and (5) evidence from clinical study indicates directly and
consistently the disruptive and distracting power of
anxiety affects some most kinds of thinking.

DeMause (1972) described the test situation as one in which the student perceived that he will be evaluated in terms of what he has achieved in the past or what he can achieve in the immediate present. Larue (1972) stated that when university students experienced feelings of anxiety before and during an examination, they reported that the physical sensation associated with the emotional distress seemed to prevent them from reading questions accurately and interpreting ideas adequately. They had difficulty discriminating between available choices. Consequently, testing procedures which frequently determined a course grade and possible continuance in school might not have been a true evaluation of their abilities.

Smith and Adams (1980) examined two components of test anxiety-- worry (W) or cognitive concerns about performance, and emotionality (E) or automatic arousal to the test situation. These components were examined in relation to temporal changes, expectancy of success ratings, and actual performance on a final examination. The W component was more highly associated with actual performance on the final than E, with high W subjects performing significantly poorer than low W subjects. Only when the separate effects of W and E were considered was it determined that E was the major source of the decrease in test performance.

The relationship of test anxiety to general anxiety was the subject of a study by Gordon and Sarason (1955). They concluded that significantly more students who reported experiencing anxiety in a testing situation also reported that they experienced anxiety in other situations. General anxiety, according to Leary (1980), involved the expectation of disapproval or rejection from others and therefore lowered self-esteem.

Rigler and Eaker (1960) stated that specific anxiety scales, such as those for test anxiety, measured a variable that involved academic performance. The general anxiety scales did not accomplish this. They concluded that the specific test anxiety scales were better predictors of academic performance, and therefore, the use of general anxiety scales was not appropriate for the measurement of academic achievement anxiety.

Test Anxiety and Performance

Sarason (1961) concluded that test anxiety was an index of pressure to performance disruption under personally threatening conditions. His research strongly suggested the need to take account of the test anxiety factor in interpreting students' intellectual performance (see (1964) and West, Lee, and Anderson (1968) discussed that anxiety interfered with problem-solving performance.

scoring by Gilmore and Kuchling (1988) and Pomeroy, Inc., and Kline (1985) reported negative correlations between high anxiety and reading ability.

Labovitz (1982) stated that tension while reading showed the behavioral signs of discomfort of posture, reader movements, sighing, and deterioration of support. An anxiety measure the subjects were unable to attend to the learning task. Berry and Frustolito (1987) found that college students experiencing academic difficulties had the ability to do better, but anxiety prevented them from performing well. Spillmeier, White and Henry (1982) reported that high-anxiety college students performed more poorly than low-anxiety college students, and that their rate of failure was four times greater. They also suggested that for many students, emotional problems predisposed them to develop maladaptive study habits and poor attitudes toward academic work which in turn, lead to underachievement.

McCauley and Gaskewitz (1988) found that complicated skills such as reading or arithmetic suffered more interference from anxiety than spelling, a single memory task. Gilford and Patten (1986) found significantly slower reading rates for high anxious fourth-grade boys. Bennett (1987) found that test anxiety scores tended to correlate negatively with measures of academic achievement.

Although with ~~improvement~~ in number of years in college the negative correlation disappeared. Robinson et al. (1988) concluded that anxiety inhibited performance, and that release from anxiety could be achieved by giving students an opportunity to write comments on their examinations. Weinbell and By (1979) observed that if the goal established were only that of test-anxiety reduction, the single-modal conditioning procedure of desensitization was effective. However, if the goal were to improve academic achievement, where past study habits were known to exist, a multimodal approach seemed necessary. This approach included test-anxiety reduction, followed by reinforcement modeling practice, and selective attention procedures designed to improve study techniques.

Current Approaches to Reducing TEST ANXIETY

Group Counseling

Spillhauser, Weiss, and Cherry (1982) reported that anxious college freshmen who volunteered for a regularly attended group counseling session showed significantly more improvement in academic performance than anxious freshmen who did not regularly attend group counseling. Strahan, Stranger, and Cherry (1982) observed that while students

that relaxation training and systematic desensitization were helpful, all considered advice and discussion to have played the more important role in the reduction of their anxiety and their increased academic effectiveness.

Cobb and Cobb (1970) reported that through the use of group process, movement based and successful task behavior can be made. The commitment of group members to help each other overcome anxiety is a powerful force. Awareness of others' feelings of inadequacy and loss of confidence seemed to be refreshing and gave support to each member. The dynamics of group interaction was the catalyst for change, but the responsibility was personal. Brown (1968) reported that high-anxious underachieving college students benefited more from an unstructured approach to a group experience than did low-anxious students.

Systematic Desensitization

According to Silverman, Fein, and Calkins (1974), systematic desensitization was the most widely used behaviorist technique. It consisted of the induction of deep muscle relaxation, followed by the visualization of scenes involving a phobic situation graded for their fear-arousing potential. Wolpe and Nysc (1973) reported that both individual desensitization and group desensitization

were effective in the treatment of high test anxiety. Their research also served to verify the findings of Ellis and Grayling (1969).

Deffenbacher (1974) stated that desensitization has led to reduced test anxiety and to improved grades. Furthermore, follow up studies have indicated that these gains were maintained (Allen, 1971; Gower, 1976; Muchenham, 1973; Paul, 1967, 1968).

The results obtained by Crasler and Thorstein (1976) demonstrated that there was no significant difference among subjects who simply imagined the anxiety provoking scenes without undergoing instruction in relaxation. Grossberg (1965), in a study of autonomic and muscular responses within brief relaxation training, failed to find any overall differences between relaxed subjects and a group that just listened to music. Schuch (1968) also noted the lack of significant differences in overall fear change between subjects trained in relaxation and desensitized under hypnosis, and subjects desensitized in the waking state without any relaxation training.

Loew and Walker (1970) stated that the reduction in anxiety which resulted from desensitization could be attributed to any of the following: the therapeutic effects of relaxation training, the simple extinction of

contingently suggested (Silverman, 1977), or the subject's
ambivalence about his reasons of treatment change.
Lambert, 1982, 1983, 1985; Trappes and Clinkley, 1987).

Levit and Miller used Jacobson's (1961) techniques for
relaxation training. It is possible that this same
training could be achieved by a shortened method suggested
by Weiss and Lerner (1966), and Weiss (1969). Lerner,
Bunker, Brown, and Miller (1966) found that relaxation
training alone was as effective as systematic desensiti-
zation in reducing test anxiety.

Example of Fantasy

Collusions

Slinger (1948) defined fantasy as those verbal expres-
sions of thought which did not exhibit any usefulness in
obtaining immediate gain external to the thought itself.

The distinction between fantasy and daydreaming,
according to Slinger (1944), was that daydreaming intruded
voluntarily on the daydreamer. It was without and probably
lacked conscious control, unlike fantasy, which occurred
at the behest of the fantasizer.

This group included the terms "induced fantasy," "directed fantasy," "guided fantasy," and "structured fantasy" interchangeably. They define an imagination experience facilitated by the counselor or therapist for the client. In this relationship the counselor acts as a guide to help the client work through the fantasy to a therapeutic end.

Use of Imagery in Counseling

Imagery was first used in therapy by the psychoanalyst, Sack (1978). The fantasies mentioned by psychoanalysts were usually of an anxiety-producing nature. Psychoanalysts did not generally use induced imagery; they tended to concentrate on defensive aspects rather than on content in reported spontaneous fantasies. Sack noted that the preponderance of these fantasies produced unpleasant effects such as shame, nervousness, anxiety or disgust. These, in turn, caused considerable anxiety. However, the unpleasant effects would diminish or be eliminated or reduced with repeated imagery of the situation even though the content of the fantasy did not change. Most imagery in counseling and psychotherapy was out of the anxiety-producing type. It was rather the kind of imagery that would lead to a discovery on the client's part.

In describing the purpose of free imagery in psychotherapy, Bayler (1943) stated that the goal of the procedure was not necessarily the development of free flowing images but the production of psychotherapeutically meaningful connections. By the time a given client was able to experience images and fantasies, he could have become acutely aware of salient aspects of disturbed patterns of behavior in his interpersonal relationships, mechanism of defense, and transference phenomena. Kelly (1974) stated that intense fantasies often were very vivid and surprising, they had the effect of allowing the client to get in touch with some part of himself with which he was previously unaware.

Martine (1971) and Ameghetti (1970) felt that some of the imagery which occurs during fantasy and meditation was apparently a gateway to closer contact with higher levels of the self. Kelly (1974) added that fantasy may be helpful in opening up sensitivity and insight into the imagination.

Buck (1966) concluded that the potency of induced fantasies, whether used in systematic desensitization, hypnotherapy, or other therapeutic operations, could be related to the fact that the patient reacted, to some degree, to the fantasized world as though it were actually happening. The use of fantasy as a technique often produced insight into the gross distortions of reality so

that a more realistic appraisal of the dangerous situations would be made with a consequent threat reduction.

Bayles (1983) stated that as idiosyncratic therapy is well recognized that they differed from dreams only in that they were less disguised, and they were valuable because they often led to the uncovering of repressed material with intense reactions and regressive behavior. Although visual imagery has been used occasionally in psychotherapy it has not been employed systematically as a diagnostic technique.

Blivinsom, Frank, and Garbinger (1974) used a subliminal message to help the client experience a fantasy of a stimulus in his mind. This, in turn, was used in place of the relaxation training in systematic desensitization and proved significantly that part of the therapeutic effectiveness of systematic desensitization resided in activating an unconscious fantasy in which the therapist became a mother substitute.

Fantasy has played a role in career development, according to Kinship (1981). He reported interview results that indicated considerable occupational fantasy in adolescence.

Daydreaming in Groups

Jinger and Robinson (1961) suggested that the tendency to engage in daydreaming is, to some extent, a learned response which develops differentially as a function of certain patterns of parent-child relationships. They found significant positive correlations among daydream frequency, night dream recall frequency, thematic complexity, need achievement, and anxiety. They also determined that people who daydream extensively show greater identification with mother than with father.

Green (1960) stated that a few daily surveys of daydreaming in normal groups suggested that it was a widespread human activity. Jinger and McClellan (1961) stated that 98% of their subjects reported that they engaged daily in some form of daydreaming. These daydreams took the form of fairly clear images of people, objects, or events.

Jinger and McClellan also concluded that daydreaming occurred chiefly when one was alone. These daydream topics reported most often concerned future actions and interpersonal contacts. Daydreaming was reported to occur chiefly before sleep and to be an enjoyable experience. They also found that the Negro and Jewish subjects showed the highest daydream frequencies and Anglo-Americans, the

Sexual. It was speculated that an upward-mobile winning group (e.g., middle class Jews and Mexicans) would suffer greater insecurity or concern about the future than a relatively secure group (middle class Anglo-Americans), and this preoccupation could easily be reflected in an increased frequency of daydreaming.

Glaser found that in a sample consisting of 275 male subjects ranging in age from 17 to 64, those between 13 and 23 daydreamed the most. As age increased, the frequency of daydreaming decreased. Singer (1988) reported seven categories of daydreams: general daydreaming; self-overlapping daydreams; objective, controlled, thoughtful daydreams; poorly controlled, subconscious daydreaming; artistic daydreaming; autistic, self-conscious daydreaming; and reproducible daydreaming.

Wardlaw (1973) found that erotic fantasy in women during intercourse did not indicate marital maladjustment. Women who had positive thoughts about their husbands during intercourse were just as likely to have erotic fantasies as those who had negative thoughts. However, the presence of such thoughts during intercourse did relate to sexual satisfaction and marital adjustment.

Winger reported that daydreams usually occur during private events such as just before bedtime or during rides on buses or trains. Frequent daydreamers, according to projective tests (3) rated as more creative story-tellers, (2) were generally more self-aware and emotionally sensitive, and (4) were less inclined to employ defense mechanisms, such as repression. He suggested that daydreaming was a fundamental human characteristic. He also felt that it was a valuable method we all use to explore a variety of perspectives. Berlyne's (1968) theory of curiosity suggested that when external stimulation was low the subject would compensate with an increased internal fantasy life.

Winnicott has been reported in the literature concerning the daydream characteristics of both normal women. May (1966) found that when women and men were shown the same pictures, the women interpreted themes of deprivation followed by enhancement while the men interpreted themes of enhancement followed by deprivation. Deprivation included such things as physical trauma or pain, injury, death, falling or losing control, growing old and weak, failure, and dissatisfaction. Enhancement included such things as physical excellence, success, growth, positive emotion, and positive anticipation.

Imagery and Problem Solving

Glaser found that problem solving ideas were the most frequent type of daydream activity of every age group except the youngest, where sex themes had a slight edge. Singer (1988) concluded from his studies that the ability to daydream was a skill that helped subjects to be more creative, more flexible in solving problems and more adept in postponing immediate gratification. Kelly reported that several clients who experienced imagery in the relaxed state before sleep became aware of solutions to problems with great clarity and originality. The chemist, Kekule, discovered the closed chains of organic compounds by this method.

Imagery and Creativity

Scheerer's (1988) findings concerning imagery-creativity suggested that for both sexes, students who produced creative works of a literary nature reported a greater incidence of the imagery-creativity phenomenon in childhood. This phenomenon did not prove significant for those in the scientific field. According to Galton (1869), a great majority of scientists reported that mental imagery was a phenomenon unknown to them. Pollack (1974) cited several studies indicating that children's fantasies were linked to verbal fluency, increased levels of concentration, originality, and imagination.

Fantasy Research Problems

Singer (1948) felt that the intangibility nature of fantasy has been the reason that so little formal research has been conducted on daydreaming. Leary (1988) stated that the difficulty in communicating fantasies resulted from the many personal perceptions, opinions, and recollections which often contrast with the subject's conscious report.

Concepts of Guided Fantasy

Use of Guided Fantasy

Sully (1912) traced the beginning of the use of directed mental imagery in psychotherapy with the case of Anna O. (Breuer and Freud, 1895). Jung vaguely described an "active imagination" technique in which patients were encouraged to visualize mental images spontaneously without the presence of a therapist. The meditative psychotherapeutic approaches of Reichman (1912) and Huggins (1948) with systematic methods described by Daniels (1932) for his "autogenic training technique," formed the foundations for modern investigation and use of guided fantasy.

Mendell (1964) described a form of behavior modification that took place in 1918 in which the patient in therapy was prepared to meet anxiety-producing situations

through structured daydreams. He called this the structured daydream. His therapy demonstrated how careful use of therapist-directed inquiry could lead clients to increased self-understanding and emotional maturity.

Kelly described his technique of guided fantasy by first assessing the need for preliminary guidance in preparing the client for the experience of fantasy: (1) the client was introduced to the technique, (2) he was advised of his functioning in the technique, (3) he was prepared to experience emotion, and (4) he was informed of his freedom and control throughout the experience.

The counselor was described as a "guide" who used relaxation techniques first, then offered an opening theme into which the client could project himself in fantasy. Kelly felt that the counselor's guidance gave the client a sense of security and also helped him face fantasized conflicts. Frequently feelings of safety and peacefulness allowed the fantasy to end on a positive note. This guided fantasy technique was used only occasionally as part of a total counseling relationship. Kelly interpreted the guided fantasy technique with the philosophy and goals of "client-centered" counseling, whereas most of the originators of guided fantasy viewed the relationship as imposed by the therapist. To him, the experience itself was significant in eliciting change. He felt that guided

fantasy was appropriate in the counseling relationship: (1) to encourage relatively freely associated, unscripted communication; (2) to alleviate tension; (3) to provide preliminary emotional expression; (4) to focus more deeply; (5) to open the avenues of insight; and (6) to gain insight into physiological processes or regulations. He described six characteristics that the client should exhibit before proceeding with guided fantasy: (1) deep commitment to counseling and its goals; (2) willingness to share the responsibility for the relationship; (3) trust in the counselor whose accepting manner is firmly established; (4) lack of anxiety or undue concern over increasing insight, any imagined activities, or dreams; (5) some comprehension of the existence of unconscious needs, motivations, and expressions; and (6) willingness to participate without viewing the experience as threatening, mystical, or unethical. The counselor's responsibility during the progression of the experience was to provide an opening situation, elicit details from the client, give support and a sense of security, offer alternative routes, and terminate at a positive point.

Isener (1968) developed a therapy called Guided Affective Imagery (GAI). He stated that GAI reduced acute alcoholic disturbances in a short time. Favorable results persisted for follow-up periods of as long as six years. The average size of treatment was approximately 48

larger with a room in order to use lights. Lainger suggested five methods for this: (i) a training method, (ii) a diagnostic method, (iii) associated imagery which is a free association applied to the client's imagery, (iv) a symbol dramatic method, and (v) a psychoanalytic method.

Lainger's method was limited to individual application only. The patient was asked to lie down on a couch. Lights were dimmed and white stimuli were reduced as much as possible. Verbal suggestions were given to allow the subject to relax deeply. Therapy then began with one of the following ten standard imaginary situations: (i) the mirror which represents a fourth start or may be a screen onto which one's current mood and most pressing problems are usually projected; (ii) the mountain which is a symbolic situation relevant to the patient's feelings about his ability to master his life situation and to succeed in his chosen career (or it may evoke repressed wishes for extraordinary achievement and fame or may also be perceived as a phallic symbol); (iii) the house which symbolizes the flow of psychic energy and the potential for emotional development; (iv) the house which symbolizes the personality (and the client can project all his fears and wishes about himself onto it); (v) the class relation who helps understand the quality of the client's emotional relationships; (vi) sexual feeling which describes the sexual relationship (implicit in the situation); (vii) the lamp which symbolizes

The child's aggressive tendencies and suggests how to handle them. (3) the client's ego ideal, a concept which shows the client the person who he would like to be and that helps him work out his problem of identity; (4) the fantasy structure, a spontaneous manifestation of deeply expressed, sometimes archaic, intellectual material; and (5) the dream as a mirror of the mind. Moreover, since the early writers of the dream was, in terms of Jung's theory, an archetype. This situation is the most dangerous of the ten because the therapist must be able to deal with the client's intense anxiety, if necessary.

Later, as Kelly, concentrated on the emotions which were evoked and experienced during the fantasy rather than the intellectual interpretation. Klein (1978) stated that induced fantasies were helpful in pinpointing the specific nature of a current problem, reducing unpleasant affect through repetition of the fantasies, and modifying the patient's overt behavior by stimulating structured or "guided" fantasies. By modifying the patient's fantasies, or the underlying ideational systems, it was possible to reduce unpleasant effects such as anxiety, depression or hostility. Furthermore, by recognizing the obvious distortions of reality in the content of the fantasies, the patient could interpret his experiences in a more realistic way.

Rees suggested that the therapist might ask the client to fantasize a specific option or alternative source of action. He used the technique of induced fantasy in many of his cases. Time perception was helpful when an individual was upset about a particular situation. By imagining the situation six months, a year, or several years hence he often gained greater detachment about the significance of the events which were currently disturbing him. Directed or guided fantasies were found to facilitate more adaptive behavior and to promote more realistic appraisal of external problems. In general, the combination of the fantasy techniques with the more conventional interview procedures appeared to enhance the therapeutic results.

Lauren (1968) used a guided fantasy technique in assertiveness training which allowed the client to rehearse in fantasy the new assertive behavior. Moore (1965) and Brown (1967) reported the use of induced imagery to clarify the patient's problems. Wendell, Levin, and Clayton (1963) reported that induced imagery had been found effective in improving performance in dart throwing. Chestnut (1971) suggested that directed imagery seemed to provide an excellent opportunity for the patient to experience the participant-observer role more directly.

Chestnut also stated that another aspect of directed imagery was that it provided a bridge from abstract to

difficult) instead of dealing with the patient's function.

Freud's later interest in behavioral phenomena was prompted by therapy, where the functioning was disturbed in such a manner as to uncover the cause of the disturbance. Thus, interventions appeared more leading to the present and facilitated the desired change; he concluded that directed imagery appeared to be a productive means for dealing with patient defensiveness, particularly early in the therapeutic process. It afforded a procedure for minimizing intellectualization by the patient and afforded relational sharing of the therapeutic struggle.

Boyer (1983) stated that there were times when the therapist wanted to influence the course of the client's imagery. The therapist wanted to do this when the client's imagery became relatively unproductive, or when it became obvious that psychodynamically significant people, such as family members, did not become represented. In order to shift the focus of the client's imagery to a dynamically more meaningful area, the therapist asked, "Could you get an image of whatever the therapist thinks is important?" If the client could not obtain this image, he realized by his emotional reactions that there was something involved in this area that the client did not want to face.

Shohet and Rasmussen (1974) reviewed the use of guided fantasy in career counseling. Citing Bach's (1961), Solowich's (1964), and Simberg's (1964) use of guided fantasy in career assessment, they stated that guided fantasy was a promising strategy for the counselor because it brought forth significant material from the client and provided a means for indirect expression of emotions, goals, and beliefs. Subjects who participated in group guided fantasies in career counseling at the University of Minnesota in 1973 found themselves authentic and engaged by the positive results of their experiences.

Fantasy and Anxiety

There have been five investigations of guided fantasy as a technique for reducing test anxiety. Each reported that many people have discovered that they could reduce anxiety and improve performance in public speaking or other stressful situations by repeatedly fantasizing the situation before it occurs.

The drive reduction theory, popularized by Freud (1905), implied that depressing was a consequence of anxiety and represented essentially a defensive response. Singer and Ross (1963) found that there was a positive relationship between the depressing score, as measured by the Depressive Questionnaire (Singer and McClellan, 1961),

and the Personal Defense (Dodge). The significance was at the .01 level. Thus, concluding that the relationship of fantasy to drive or affect, was far more complicated than was implied by the drive-conflict theory.

Leary (1951) cited as an example of anxiety and fantasy the individual who stated that openly he was submissive, but secretly he wished to be strong and powerful; self-esteem might then be increased and the anxiety of self-derogation diminished by a fantasy of fearful power in a person who on the surface is self-shaming and over-conscious. Leary concluded that by measuring the client's fantasy by the Thematic Apperception Test he could determine the source of the interpersonal sources of anxiety and predict future behavior. He found this to be significantly true for a sample of subjects.

Slinger (1951) reported that fantasy had the capacity either to increase or to decrease anxiety, depending on its timing in relation to the subject's concern and inner times. He concluded that fantasy was incapable of reducing drives, but because of its content-creating character, it could prevent or postpone the build-up of anger and could diminish anticipatory anxiety.

Introduction

Korzybski's Imagination Test

Korzybski made the observation that people who look at behavior and report seeing human beings in action -- the so-called *R* determinants -- are imaginative individuals inclined to an original, rich inner life. The *R* or human movement element is one of four types of categories which is determined by the Korzybski test. The other three are form elements, color elements, and shading elements.

Korzybski's penetration to the essence of the movement response (R) as fantasy activity was, in the opinion of Berk (1981), his greatest achievement. According to Berk (1981), Korzybski repeatedly referred to *R* as "inner action," a tendency in which the individual turned in upon himself, had little to do with the world of reality, and created a world of his own values. He suggested that people with high *R*, whether they habitually used this energy creatively or purely as an escape into fantasy, should be capable of self-expression productively through various expressive media, such as graphics, verbal or written forms. He found significant results when correlating high *R* subjects with other tests of creativity such as the Minnesota Appreciation Test, Remote Patterns Test, and Figure Knowledge Test. Berk (1981) considered the

M determined as an ego defense mechanism through which the individual withdraws into a world of fantasy when reality becomes too unpleasant. Berenbach himself stated that people with high M detachment have an active approach to life. This gave M an active suppression-working quality.

Ginger and Brown (1964) used the IM of Berenbach's Tabbler Test in determining high and low fantasizers. They showed that high-M subjects have greater delaying tendency, less impulsivity, less spontaneous motor response, and higher scores on measures of fantasy. The high-M subjects were roughly eight times greater in their M measures as the low-M group. The above results were significant at the .05 level.

Fogg (1967) rated the Berenbach Tabbler Test prominent among those instruments that elicit information about an individual's tendency to engage in fantasy. Using the group Berenbach, with the slides prepared by Harrower, he tested from 10 to 15 subjects at one time, and employed the scoring system described by Fopfer and Kelly (1962). In correlating his own fantasy self report scale, Fogg found significant results with the M scores at the .05 level. Therefore, he concluded that his findings supported the notion that the tendency to project outward in the Berenbach was associated with fantasy activity.

Slagter and Miller (1942) stated that in the Barnard's Inkblot Test the subject usually had a picture of some kind of creature doing something in such a way that the action became visible as the whole or part of a card. As long as the creature performing one of these actions was thought to be present, such a response was a response B. They also determined that even an animal which displayed human movement qualities such as playing cards, dancing, and printing was considered a time B response.

Barnes (1946) found that the B response accompanied a tendency toward introversion rather than extroversion. Introversion was defined as an inclination to experience vicariously in fantasy rather than directly in real life and to create through the arrangement of symbols. He believed that a lower B threshold meant a greater disposition toward an B response. Those subjects who were intelligent, feminized, mild, anxious, and inventive correlated at the .05 level of significance with a low B threshold. Other significant findings demonstrating low B threshold individuals were an failures' values negative parents, passive intellectual activity, loneliness with in the world, exhibits socially appropriate behavior, and demonstration self-awareness. He also reported that subjects with low thresholds for B described themselves significantly (.05 level) more often as quiet and self-conscious during their childhoods. They were also less

interested in participating in sports than high-threshold subjects. The latter for the most part described themselves as active and characterized their childhood as happy. He concluded that the adults who tended to perceive human movement in the labile were in childhood somewhat shy, sensitive, overprotected, or externally dominated. Berry's findings supported Korschak's claim that movement responses are produced most abundantly by persons who function more in the intellectual sphere and whose interests gravitate more toward their innately living center than toward the world outside.

The above research has shown the Korschak (K) to be a valid measure of ability to engage in fantasy. The Age of the Korschak Labile Test used in this author's investigation was the group Korschak administered according to Harrower (1948), and scored according to Klapier and Kelly (1943). The two Korschak cards were reproduced as film slides for group use (Harrower, 1945).

Harrower's "group method" was based on her assumption that writing down responses to the labile was just as valid as verbalizing them to the examiner. Harrower and Stainer (1951) used 110 subjects who were divided into four groups. One control group took the individual Korschak test twice. The second control group took the group Korschak test twice. The third group took

the individual Rorschach test followed by the group Rorschach test. The fourth group took the reverse order of the third group. All testing occurred within five days of the first test in order to rule out any change in personality caused by development or a change in life situation. They found that the only consistent changes were those which occurred as a result of repeating the test and not as the result of the change in test method. That is, the same changes occurred in the second test among the control subjects who experienced no change of method as in both the experimental groups.

The group Rorschach, though originally devised principally for military use, has been used in a variety of settings. Hartman and Deitz (1955) have successfully investigated the group method in high altitudes which change personality. Hartman (1955) reported:

"In a recent experiment the group Rorschach has been shown to be a sensitive indicator of changes in adjustment occurring under high altitude conditions. The experiment, which is one of a series, has indicated that the group test is at least as adequate an indicator of change as the individual test had previously been found to be for similar conditions." (p. 128)

The group method has also been found valuable in child guidance clinics and guidance centers. Bragman (1943), for example, reported:

"At the senior high school level the group method served a useful purpose. The writer recently participated in a rather intensive study of 450 boys, in the third and fourth years of the academic high schools of New York City, who were enrolled in advanced scientific revision courses. Among the battery of psychological tests employed was the group Rorschach. ...Although far from complete, preliminary results indicate that although the group test will probably not yield as many data as the individual Rorschach would have, the data yielded promise for greater usefulness for personality evaluation than any other pre-war 'personality' test now known to the writer and his colleagues." (p. 87)

The group method has been used successfully in institutions for psychiatric patients. According to Bick (1941), even seriously disturbed patients might be tested under group conditions when, because of suspicion or an extremely negativistic attitude, the individual method had failed. In this connection, some of the psychoneurotic females who were unable to take the individual Rorschach became "caught up" in the group administration of the test so that they were able to participate. The declared aim and the feeling of companionship with the other patients involved in the same apparently broke down the barriers of resistance.

In schools and colleges the group Rorschach has been administered for guidance, screening, or research in

presumably, Kossman identified fifty experimental individuals in 1948 where this method was in use.

Administration of The Group Experiment

According to Kossman and Weiner (1948) the slide projector and screen are arranged so that all subjects can see the slides without obstruction. Room lighting is dimmed in order to observe the slides, but light enough for the subjects to see what they are writing. They found that in many cases the light from the slides was ample for writing. Each of the ten slides is exposed on the screen for three minutes. The subjects then receive the following verbal instructions:

The test which you are about to take is rather an interesting one and I think you will enjoy it. All you have to do is to look at some slides which will be projected on the screen and write down what you see. Now the point about these slides is that they are nothing more or less than reproductions of ink blots. Probably all of you at one time or another have noticed your pen on a piece of paper, moved a blot of ink, and on holding the paper produced a weird splash which may or may not have reminded something that you recognized. Now these slides are nothing more than reproductions of ink blots formed in this way. Your task is simply to write down what these splashes remind you of, resemble, or might be. You will see each of these slides at least for three minutes and you may write your answers at your own time. Is that understood? Is any help you takes in the test if you make a point of numbering your answers to each slide as you write them down.

The Test Anxiety Questionnaire

The Test Anxiety Questionnaire was devised by Sarason and Mundier (1970). They used 492 students enrolled in introductory psychology classes at Yale University for validation of their instrument. This instrument was obtained from the authors with their written permission to use it and make copies, for personal or personal notes outside the journal article (Sarason and Mundier, 1970).

The instrument contains 39 questions. Although the subjects answer along a continuum, each item will be scored either "not anxious" (0) or "anxious" (1). The scores then will range from 0 to 39. In their research they found that scores 23 or over were considered high test anxiety.

Questions in this questionnaire passed the .001 level of confidence for unidimension, according to Sarason and Mundier. Split-half test on one class (N=100) produced a correlation (Spearman-Brown) of .71 and a post-hoc analysis (Kruskal Interval) on another class (N=79) produced a correlation of .81. Boker and Adams (1968) stated that the Mundier-Sarason Test Anxiety Questionnaire was one of the most commonly used criterion measures of academic performance anxiety or test-taking anxiety.

The Albert-Raber Achievement Anxiety Test

This instrument was developed by Albert and Raber (1946) at Harvard and Yale University, respectively. The subjects were 283 male freshmen enrolled in introductory psychology classes at Stanford University. The records at Stanford University disclosed that 79% of their students plan to take introductory psychology. Other test anxiety and achievement scales were given anonymously to the subjects.

The instrument consists of nine facilitation items, ten debilitating items, and a small number of non-scored neutral buffer items. All these types of items were randomly mixed into one questionnaire. The subjects answered each item on a five-point scale, indicating the degree to which the item applied to them.

Albert and Raber perceived test anxiety in two ways: facilitating and debilitating. As mentioned earlier, facilitating the test anxiety helped students to perform better in examinations, and debilitating test anxiety interfered with their performance. They measured each type of test anxiety separately, assuming that the two types need not be correlated. According to them, an individual may possess a large amount of both anxieties, or of one but not the other, or of none of either. This was

the purpose of developing two separate scales. The question was whether, when predicting an academic performance score such as college grade-point average, there was any advantage in using both scales rather than using merely a conventional debilitating anxiety scale such as the Test Anxiety Questionnaire by Hansen and Hendler. The Albert-Raber measure of debilitating scale and the Test Anxiety Questionnaire correlated .44 with an R of 80.

Albert and Raber also showed that multiple correlations, using both the facilitating and debilitating scales to predict grade-point average, were significantly better predictors than either scale alone. They believed that the incorporation of items designed to measure facilitating anxiety into a scale which already effectively measured debilitating anxiety could increase significantly the prediction of academic performance scores. They also showed that their Achievement Anxiety Test significantly predicted both final examination grade and grade-point average. In the same study, the Test Anxiety Questionnaire by Hansen and Hendler predicted significantly at the the final examination grade.

There have been several studies to date (Albert and Raber, 1968; Raber, Hansen, and Miller, 1969; Walsh, Engelstam and O'Hara, 1968) which have demonstrated that scores on the Albert-Raber Achievement Anxiety Test were

related to performance on actual classroom tests. Students who received high scores on the facilitating anxiety scale tended to perform better on achievement measures than those who received low scores. Similarly, students who scored high on the debilitating anxiety scale tend to perform at a lower level than those who obtained low scores. Smith (1986) found that students reporting facilitating anxiety tended to have an optimistic outlook and a stability of personality. Conversely, students reporting high debilitating anxiety revealed a pessimistic viewpoint and a more unstable personality.

Both scales (facilitating and debilitating) have gone through numerous revisions based upon item analyses, correlations with various criteria, and theoretical considerations. The test-retest reliabilities for a two-week interval were .83 and .87, respectively. The test-retest reliability over an eight-month period was .75 for the facilitating scale and .78 for the debilitating scale.

This author received written permission to use and duplicate the Rippet-Beber Achievement Anxiety Test from the authors. There has been no manual or manual published. All information to date has been published in a journal article (Jasper and Baker, 1986).

Test Anxiety Self-Report Scale

This instrument (Appendix I) was constructed by the author to act as an indicator of test anxiety problems. It is simply a screening instrument to allow the student to voice his feelings about anxiety in test conditions. The instrument was not constructed as a "test anxiety self report scale." Instead, it was introduced as a project to find out how this author can help people perform better on examinations.

In addition to the items of which two (1, 2) are shown, Responses are along a continuum. Scoring is similar to the Test Anxiety Questionnaire. Items such as name, sex, phone number, and test class to which are included. No information is available on the reliability or validity of this self report. Since the two test anxiety instruments were given as pretests, this author felt it appropriate to use this self report for screening purposes.

CHAPTER III

RESEARCH METHODOLOGY

An experimental research program was employed to determine the effects of guided fantasy as a treatment for reducing test anxiety in community college students. Basically, the fantasy level and test anxiety instrument were administered as pretests to a sample of students before they participated in the guided fantasy experimental treatment. Following the treatment, the two instruments were again administered to the participants.

Two investigations also studied the effects of high and low fantasy levels of the subjects, as measured by the group Research. If there was a significant effect of one level over the other, it was concluded that the treatment was more facilitative with a particular fantasy level. Class performance was investigated as an effect of the experimental treatment. If grades improved significantly for experimental group compared with the control group, from mid-term to final examinations, as a result of reduced

usability by the experimental treatment, it was concluded that this treatment did facilitate students in reaching higher levels of class performance.

In order to control for extraneous influences on the posttests, a total of five different groups of subjects was studied. Each of the five groups received a different combination of training and/or testing and/or treatment/ control conditions. The end result allowed for a comparison of experimental and control groups. (See Research Design Chart).

Group 1 was given (1) the posttests, (2) the guided fantasy treatment, and (3) the posttests. Group 2 was given (1) the posttests, (2) the fantasy control treatment, and (3) the posttests. Group 3 was given (1) the posttests, (2) the posttests, and (3) the posttests again after one semester. Group 4 waited one semester and then was given (1) the posttests, (2) the guided fantasy treatment, and (3) the posttests. Group 5 also waited one semester and then was given (1) the posttests, (2) the fantasy control treatment, and (3) the posttests.

Experimental Procedures

- 101 Control Treatment Group
- 102 Control Treatment Group
- 103 Control Treatment Group
- 104 Control Treatment Group
- 105 Control Treatment Group

Baseline characteristics

- 101 Control Treatment Group
- 102 Control Treatment Group
- 103 Control Treatment Group
- 104 Control Treatment Group
- 105 Control Treatment Group

Time code: The time line represents the sequence of the experimental design, from baseline to follow-up.

- A - The first week of baseline of each participant
- B - The third week of baseline
- C - The fifth week of baseline
- D - The time that the first week of baseline, treatment, and follow-up will be one week after the baseline.
- E - The week before final assessment.
- F - The week of final assessment.

Figure 1. Research Design

The Hypotheses

the following null hypotheses were tested):

H_{01} -- There will be no difference in the level of test anxiety, as measured by the Test Anxiety Questionnaire, among the subjects in the guided fantasy treatment groups (1 and 4) and the fantasy control treatment groups (2 and 3).

H_{02} -- There will be no difference in the level of test anxiety, as measured by the Test Anxiety Questionnaire, among the subjects in the guided fantasy treatment groups (1 and 4) and the control group 5.

H_{03} -- There will be no difference in the level of test anxiety, as measured by the Test Anxiety Questionnaire, among the subjects in the fantasy control treatment groups (2 and 3) and the control group (5).

H_{04} -- There will be no difference in the level of test anxiety, as measured by the Sigort-Kober Achievement Anxiety test, among the subjects

in the guided fantasy treatment groups (1 & 4)
and the fantasy control treatment groups
(2 & 3).

H_{0A} -- There will be no difference in the level of
test anxiety, as measured by the Rippet-Baber
Achievement Anxiety test, among the subjects in
the guided fantasy treatment groups (1 & 4)
and the control group (2).

H_{0B} -- There will be no difference in the level of
test anxiety, as measured by the Rippet-Baber
Achievement Anxiety test, among the subjects in
the fantasy control treatment groups (2 & 3)
and the control group (2).

H_{0C} -- There will be no relationship between the
fantasy level, as measured by the group
Sociometer, and changes in test anxiety, as
measured by the Test Anxiety Questionnaire.

H_{0D} -- There will be no relationship between the
fantasy level, as measured by the group
Sociometer, and changes in test anxiety, as
measured by the Rippet-Baber Achievement
Anxiety test.

- H₀5 -- There will be no relationship between the class performance of the subjects, as measured by their midterm and final examination grades, and treatment group.
- H₀6 -- There will be no relationship between treatment effects (anxiety, relaxation, and control) and change in anxiety as measured by the Alperin-Rosen Achievement Anxiety Test.
- H₀7 -- There will be no relationship between effects (anxiety, relaxation, and control) and change in anxiety as measured by the Test Anxiety Questionnaire.

Population

The population consisted of full-time day students enrolled in introductory psychology courses at Westchester Community College in New York. This course was an elective but college records showed that over 70% of the students enrolled elected introductory psychology during their community college career. Approximately 13 sections were taught in the fall term of 1975. The average class size was 30 students. The population was approximately 45%.

Selection of Subjects

All students in the population were given time at the beginning of their third class meeting to complete the first Auxiliary Self Report Scale (Appendix 1). Based on the results of this scale, the author invited 75 high scoring students to accept in a program designed to help them reduce their test anxiety. Considering a drop out rate of 25% resulting over the time of the experiment, it was predicted that there would remain at least a minimum of 56 students in each of the five research design groups at the conclusion of the study. These 75 students were divided into the five research design groups by random sampling and assignment.

The data from the ten students with the best attendance records during the study were used for final analysis. A breakdown of these attendance records was as follows:

In research group (1) six students had no absences, three students had one absence, two students had two absences, one student had three absences and three students did not show up either at all or for one of the sessions where written tests were given.

In research group (2) seven students had no absences, four students had one absence, one student had two

absences, no student had three absences and three students did not show up either at all or for one of the sessions where written tests were given.

In research group (3) eleven students had no absences while four students did not show up. Since this was the control group and only met for a written test, the author mailed each student of this group the night before the meeting to assure the test attendance.

In research group (4) eight students had no absences, two students had one absence, three students had two absences, no student had three absences, and two students did not show up either at all or for one of the sessions where written tests were given.

In research group (5) seven students had no absences, three students had one absence, two students had two absences, no student had three absences, and three students did not show up either at all or for one of the sessions where written tests were given.

Ten students from each group were chosen for statistical analysis based upon their attendance records. In cases where more than ten students had equivalent attendance records, a random selection was used (as in groups 1, 2, and 3).

The Research Design

The research design actually consisted of two separate samples (groups 1 & 2, and 4 & 5) at different points in time, using a control, matched group. The first sample (groups 1 & 2) took the posttest the fifth week of classes in the fall of 1975. These subjects received the experimental or control treatments in five one-hour meetings following midterm. They took the posttest the week before final examinations at the end of the fall, 1975, semester.

At this same time (the week before final examinations), the second sample took the pretest. This sample also received the experimental or control treatments, following midterm, for the same length of time and number of meetings as the first sample. They then took the posttest the week before final examinations at the 1976 spring semester. Control group (3) took the pretest the fifth week of classes in the fall, 1975. This group took the posttest at two separate times; the first time was during the week before final examinations at the end of the 1975 fall semester. The second time was during the week before final examinations at the end of the 1976 spring semester. This group received no treatment, and acted as a

1. (b) (1) To (b) (2) for magnitude of examination and history of effort as well as progressive changes in test anxiety.

It was important to note that the major difference between the two samples was that the first (groups 1 & 2) were taking their pretest at a time of relatively low test anxiety (the beginning of school), whereas the second (groups 4 & 5) were taking their pretest at a time of expected high test anxiety (the week before final examinations).

The Pretest

The pretest consisted of three instruments: (1) the group Rorschach, (2) the Test Anxiety Questionnaire, and (3) the Albert-Meyer Adjustment Anxiety test. Detailed description of these three instruments, plus information concerning the Test Anxiety Self Report Scale, prepared by the author, appeared in Chapter 13.

The group Rorschach was given as a pretest to determine the subject's high or low levels of fantasy. The two test anxiety instruments were given as pretests and post-

tests. Only one form of each test was used. Since 25 weeks elapsed between administering the reports, this author felt that the use of one form was appropriate.

The Experimental Treatment

The experimental treatment consisted of three parts: (1) relaxation training, (2) guided fantasy about test anxiety, and (3) group counseling. Each of the two experimental groups (3 & 4) underwent identical treatments except that group 3 was one session ahead of group (4).

Each of these two experimental treatment groups met with the author for five one-hour sessions, starting after addresses were over in each semester and continuing for five successive weeks. The five weeks ended the week before final examinations. During each of these five sessions, the author led the group in (1) ten minutes of relaxation training, based on the shortened method developed by Wolpe (1958); (2) twenty minutes of an audio taped guided fantasy about test anxiety, prepared by this author (Appendix II), and (3) thirty minutes of group counseling based on the Rogersian approach to counseling.

Wolpe's (1958) shortened method was more appropriate than Jacobson's (1938) approach for the size limitations of

this investigation. It consisted of relaxing parts of the body separately until the whole body was relaxed. The subjects were asked to lie down with their eyes closed during this part. Lights were dimmed.

The audio taped guided fantasy about test anxiety were based on Goldberger's (1934) hierarchies of test anxiety (Appendix III), commonly used in systematic desensitization. The hierarchies were used only to set the scene for the guided fantasy. By suggestions and guiding techniques, based on Kelly (1972), the tapes allowed the subjects to reach their own conclusions regarding their test anxiety problem by using their creativity in fantasy. Subjects remained in relaxed positions during the tape. Each of the five sessions involved a more threatening situation. This author's voice was used to make the tapes, and the same five tapes were used in both experimental treatment groups (1 & 4).

The group counseling session was based on Rogers' client-centered approach to group counseling. This model was basically a voluntary group around with a "pass" option. The subjects were asked to share their feelings and to discuss their feelings in a non-threatening environment. The subjects were seated in a circle and the role of the

considered was that of a facilitator and to note here that everyone spoke for himself. This method was the comparison.

The Controls

There were two types of control groups. The first type did not receive any treatment. Group (2) in the research design was this control. Subjects in this group took the pretests and the posttests without receiving any treatment. The second type of control was called the "fantasy control treatment." Groups (3 & 5) in the research design were this control. Although it was a control for the guided fantasy part of the experimental treatment, it was in itself a treatment consisting of relaxation and group counseling. This fantasy control treatment group met with this author for five sessions of forty minutes each during the same time span as the experimental treatment groups. The session consisted of ten minutes of relaxation training, also based on Wolpe (1958), and thirty minutes of Rogerian group counseling following to the subjects' relaxation experiences. The topic of test anxiety was not brought up by the counselor but was discussed if the subjects initiated it. This author was the counselor.

The Posttests

The posttests consisted of two test anxiety inventories. They were given during the week before final examinations in the 1975 fall semester for groups 1, 2, and 3, and during the week before final examinations in the 1976 spring semester for groups 3, 4, and 5.

The Collection of Data

The data for this investigation were collected in the following sequential order:

1. The Test Anxiety Self Report Scale was given to introductory psychology classes the first week of classes in the 1975 fall semester. It was scored and recorded.
2. Research design groups 1, 2, and 3 were given the posttests the fifth week of classes of 1975 fall semester. Scores were recorded.
3. The experimental treatment group 1 and the fantasy control treatment group 2 were given their respective treatments.

4. The posttest was given a week before finals to groups 1, 2, and 3, while the pretests were being given to groups 4 and 5. Scores were recorded.
5. The experimental treatment group 4 and the funding control treatment group 5 were given their respective treatments.
6. Groups 3, 4 and 5 were given their posttest during the week before final examinations of 1994 spring semester. Scores were recorded.
7. Midterm and final examinations grades were obtained from the students. The grading system at this institution was: A, B+, B, C+, C, D, D+, F, F+. The grades were noted and recorded. In determining changes in grades, all grade changes for all classes between midterm and final examinations were recorded. The dependent variable (i.e., performance) was the net change of grades for each student combined over all nine classes, for example: If a student increased from a C to an A in course ABC and went from B to A in XYZ the net performance score was 2.

Analysis of the Data

Null hypotheses H_{01} through H_{05} and H_{08} were tested by independent t -tests. When necessary the Mann-Whitney U test was employed.

Null hypotheses H_{07} and H_{09} were tested by a point biserial correlation between high and low functioning and change between pretest and posttest scores on the task anxiety instrument.

Null hypotheses H_{010} and H_{011} were tested by t -tests of two independent samples comparing mean changes in anxiety instruments between groups.

CHAPTER IV

RESULTS

The purpose of this study was to determine the efficacy of a guided fantasy technique as a treatment for reducing test anxiety among community college students. The dependent variables involved in this study were test results from two test anxiety instruments, high or low tested anxiety level measured by the group Karanbath, and performance as measured by admission and final grades.

The basic raw data are presented in Appendix II and are summarized in Appendixes V-8. The eleven null hypotheses stated in Chapter III were analyzed statistically and rejected only if they reached the 10% level of confidence.

Hypotheses H₁ through H₅ could not be rejected. When all five research groups were analyzed by independent t -tests, no significant differences between pretest and posttest scores could be found. The mean scores and standard deviations are shown in Appendix VI; the t -test comparisons are shown in Appendix VII. Null Hypothesis H₆

could be rejected at the 20% level of confidence with the independent g -test, but when the more conservative Bonferroni g test was applied, this was no longer possible. The implication of the failure to reject the first five null hypotheses is that the groups may be considered equivalent on the Test Anxiety Questionnaire and the Albert-Baker Achievement Anxiety Test before and after giving the experimental treatments.

Hypothesis H_{14} was rejected. There was a significant difference between fantasy control treatment group (2 & 3) and the control group (1) based on posttest scores of the Albert-Baker Achievement Anxiety Test. The mean Albert-Baker Achievement Anxiety Test Scores for groups (2 & 3) and (1) (control) were 13.8 and 14.3, respectively. These means were significantly different at the 2% level of confidence. The mean Albert-Baker Achievement Anxiety Test score for group (1) (control) was 13.9. Compared to the mean for group (2 & 3) it was significantly higher at the 2.2% level of confidence.

Concerning fantasy level and changes in test anxiety, Hypotheses H_{15} and H_{16} were both rejected. Considering the Test Anxiety Questionnaire, the guided fantasy treatment group (1), fantasy control treatment group (2), and combined fantasy control treatment groups (3 & 4) showed significant positive correlations of .53, .47, .38, respectively between fantasy level as measured by the group

Reverberant and change in test anxiety. Thus, those subjects having a higher anxiety level exhibited a significant decrease in test anxiety, as measured by the TAI, on the Albert-Baker Achievement Anxiety test. However, an individual research group or set of related groups showed any changes, but when all five research groups were examined together, there was a significant (39%) negative correlation ($r = .389$). This would suggest that the higher the anxiety level the greater the reduction in test anxiety measured by the Albert-Baker Achievement Anxiety test. (See Appendix VII.)

In classroom performance all five experimental and control groups showed significant performance increments between the criteria in final grades. Hypothesis 2.5 was thus rejected. With 1.2 grade increments guided fantasy treatment groups (1 & 4) showed the greatest improvement in performance ($p < .05$). Guided fantasy control groups (2 & 3) also improved significantly (0.8 grade increments, $p < .05$). Control group (1) showed the least improvement in performance (0.5 grade increments, $p < .05$). The experimental groups showed significant improvement over the control group (1) in performance. (See Appendix VIII.)

There were significant results between treatment groups and changes in test anxiety. Hypotheses 2.6 and

H_{011} was rejected. Considering null hypothesis H_{012} , the guided fantasy treatment group (4) showed a significantly ($p < .05$) greater reduction of test anxiety (-3.1) on the Albershuler-Johannessen Anxiety test than the control group (3), (-1.1). Guided fantasy control group (5) showed a greater reduction of test anxiety than the control group (1), -2.5 vs -1.1 ($p < .18$). The combined guided fantasy control groups (1 & 5) also evidenced reduced test anxiety compared with control group (3) at the 10% level of confidence (-3.45 vs -1.1). (See Appendix XX.) In regard to hypothesis H_{013} , the guided fantasy treatment group (4) showed a greater reduction ($p < .015$) in test anxiety than the control group (3), -6.0 vs -2.4, based on the test Anxiety Questionnaire. Guided fantasy treatment group (4) showed a greater reduction of test anxiety ($p < .01$) than guided fantasy control group (5), -6.0 vs -2.4, on the same test. The combined guided fantasy treatment groups (1 & 5) also evidenced reduced test anxiety compared with control group (3), -6.4 vs -2.2 ($p < .12$).

The oral self report data from the subjects in the experimental groups (1, 3, 4, and 5) suggested the following: increased ability to fall asleep at night, increased time in relaxing during waking moments, an acid interest in

Learning about themselves through dating journeys, and an increased confidence while studying for an examination.

CHAPTER V

DISCUSSION AND SUMMARY

Classification of Results

The research questions under investigation in this study were:

1. Does guided fantasy about test anxiety reduce test anxiety?
2. Do tested high testanxious improve significantly over tested low testanxious when given a guided fantasy treatment to reduce test anxiety?
3. Does guided fantasy about test anxiety affect class performance, in all the subjects' classes, as measured by mid-term and final grades?

The findings reported in Chapter IV suggested that guided fantasy about test anxiety tends to reduce test anxiety as measured by the Test Anxiety Questionnaire. Guided fantasy treatment group (4) showed significant reduction in test anxiety over control group (2) as well as fantasy control treatment group (3). Guided fantasy treat-

ment groups (2 + 4) together showed significant reduction in test anxiety over control group (1). It must be noted that guided fantasy treatment group (4) had a mean reduction in anxiety of more than twice as much as any other group. Considering only the Test Anxiety Questionnaire, guided fantasy treatment group (4) did exhibit significantly reduced test anxiety as compared to fantasy control treatment group (3). Since both groups received release film training and group counseling, yet only differed in the guided fantasy treatment, that factor made the difference in the reduction. It is of interest to note that guided fantasy treatment group (1) did not show any significant reduction of test anxiety on the Test Anxiety Questionnaire when compared with control group (2). Thus when looking at guided fantasy treatment groups (2 + 4) together it is important to note the strong effect of guided fantasy treatment group (4).

Considering the Roper-Walker Attitudinal Anxiety Test, guided fantasy treatment group (4) also showed more reduction of test anxiety than any other test group. Guided fantasy treatment group (4) had significantly lower test anxiety than control group (3). Guided fantasy treatment groups (2 + 4) showed no significant difference in test anxiety compared with control group (3), yet fantasy control treatment group (3) and combined fantasy control treatment groups (2 + 3) showed significantly lower test anxiety than

control group (1). Considering that guided fantasy treatment group did not have significant effect and that both fantasy control treatment group (2) and (3 + 4) showed significant test anxiety reduction over control group (1), it may be suggested that guided fantasy had no apparent effect on reducing test anxiety.

Concerning fantasy level and guided fantasy treatment, the findings were incongruent. Guided fantasy treatment group (2) showed a significant positive correlation at the 95% level of confidence between fantasy level and increased test anxiety as measured by the Test Anxiety Questionnaire. Guided fantasy treatment group (3) and (3 + 4) together showed no significant correlation. When looking at the Algeri-Raber Achievement Anxiety Test, no single treatment group correlated significantly between fantasy level and anxiety change. Only when all five groups were taken together and compared did a significant negative correlation appear. These results not only showed little relationship of fantasy level to change in test anxiety as a function of guided fantasy, but also showed opposite results with each of the test anxiety instruments. That is, for groups (1), (2), and (3 + 4) a positive correlation existed which stated that the higher the fantasy level the higher the change in test anxiety as measured by the Test Anxiety Questionnaire. In contrast, combined groups (1+2+3+4+5) resulted in a negative correlation between fantasy level

and test anxiety as measured by the Albert-Haber Achievement Anxiety Test. That is, the higher the fantasy level the lower the change in test anxiety according to that instrument.

This phenomenon set up doubt as to how well these instruments measured test anxiety. Since each instrument correlated at the 10% level of significance it was difficult to determine any real significant relationship. If only one instrument were used in this study, then perhaps a conclusion could be made about fantasy level and change in test anxiety. By using two instruments real doubt was found to exist in this relationship between fantasy level and change in test anxiety.

Guided fantasy treatment groups (1 + 4) were found to have the most significant increase in performance as measured by change in siderns to final grades in all classes. Actually all groups showed a significant increase in performance. Guided fantasy control groups (2 + 4) performed better than fantasy control treatment groups (3 + 5) who in turn performed better than control group (6). Of the three research questions, this one about classroom performance seemed to be the most significant in terms of data and statistics. The finding that the guided fantasy treatment groups performed significantly better, as measured by siderns and final grades, was valid under the limitations

that performance scores might also measure some other elements and differences not totally due to test-taking.

Discussion of Results

Lowering measured test anxiety is an important goal in itself according to Refaatkhle, Faldie, and Sprisman (1981). This accomplishment inferred that performance would increase as a result of lessened anxiety over tests. Perhaps just the student knowledge that he has achieved an improved score on a test anxiety instrument is sufficient to give him the confidence and self assurance to enter a classroom testing situation more successfully. Both guided fantasy and guided fantasy control groups significantly lowered measured test anxiety over the control group. Interestingly enough, the guided fantasy control groups had a more significant effect in this respect when compared with the guided fantasy groups. Thus, it could be said that the relaxation training and group counseling alone served to reduce measured test anxiety. Test anxiety is an especially universal educational experience in the United States where there exists a test conscious culture, according to Refaatkhle (1972). Defensively the student is judged by how well he tests. As long as this attitude about test taking exists in this country, the researcher will have to make use of all the resources and techniques

available to (1981) the most reliable basis of coping with the specific concerns over test anxiety. A more far reaching effort of lowering test anxiety is the relationship in general anxiety. Gordon and Kagan (1981) found a close link between test anxiety and general anxiety. This further substantiated the need for more effective means of reducing test anxiety.

The use of relaxation training and biofeedback in the form of systematic desensitization has been used widely in the past by counselors for reducing test anxiety as well as other specific anxieties according to Silverson, French, and Backinger (1984). The guided fantasy treatment incorporates these techniques into a holistic approach for dealing with test anxious students. There is a marked advantage in training counselors in the guided fantasy technique since they are already familiar with the concepts of relaxation training, biofeedback, and group counseling. Training in fantasy journeys is becoming more popular today with the increased interest in self awareness. Fantasy has been distinguished from daydreaming in that it is a planned activity not a haphazard one. Guided fantasy is further distinguished by having a predetermined subject and direction. The curiosity factor within each student as to how his guided fantasy will evolve and what effect it will have on his future test taking behavior is a point that seems to keep the student interested in this specialized technique.

The fact that a high private adventure is also appealing to the student since it limits the risk taking and self disclosure and allows the student to experiment and practice behavior within the limits of his own initiative and those of the guiding boundaries of the fantasy.

Specific forms of the guided fantasy could be devised for oral examinations as well as written ones. McCandless and Cummings (1954) found that anxiety in different reading and arithmetic skills were than simple memory tasks. The writers might thus profit the most from a guided fantasy approach especially tailored to that specific test taking atmosphere.

The importance of group counseling cannot be stressed enough when considering techniques concerning test anxiety. The guided fantasy technique makes full use of group counseling as a means of bringing the various experiences together as well as a time to share those private moments experienced in individual fantasies. Reactions to the relaxation training, guided fantasy and other related efforts may be explored in the group sessions. Spielberger, Weiss and Henry (1951) found that group counseling helped to improve performance by peer effects, adaptation, and the sharing effects. This was evidenced by the writer during the counseling sessions, especially the peer effects.

In today's academic settings, test results are viewed as a measure of the student's performance. Nothing other than the grade is taken into consideration when the test result is evaluated. Of course the teacher gets other views of the student's ability in the form of class participation, reports, homework assignments, and basic attitude in class. If the test result itself could be qualified by some measure of that student's ability to take tests it would allow the teacher to use the grades with the understanding that perhaps the student has test anxiety interactions. Garmon (1941) suggested that a student's measure of test anxiety should be taken into account when evaluating his performance. McWhorter, Feltus and Spinnaker (1941) further suggested that students be able to write notes at the end of their examinations describing their anxieties and its effect on their performance. Guided Anxiety, group counseling, and relaxation training show particular usefulness in helping reduce test anxiety and these could help test scores become a better measure of true performance among all students.

Reducing test anxiety is an accomplishment, but improving performance has a real effect on the student's academic success and professional future. It is in this real sense that the guided fantasy approach has made the most impact. If the student has enough academic confidence, he will feel he has been helped even if he attains

higher grades without of just increasing his stress on a test anxiety instrument. It is clearly possible that attainment of higher grades may lead to a reduction of test anxiety, but the design of the present study makes more probable the inference that the reduction in test anxiety itself caused the achievement of higher examination scores. Mitchell and Ng (1971) agreed that when it came to test anxiety in an academic environment, test anxiety reduction was not enough. In addition it was necessary to improve performance by reconstructive modeling practice. The guided fantasy technique could be closely compared when considering that fantasizing an act has been linked to practicing that same act. It has also been shown that with practice the fear of failure is reduced. This perhaps compares more favorably than practicing skills within the structure of a group workshop where rates of improvement, expressions of frustration, and degree of privacy are more noticeable by peers in the group. Brown (1970) reported that an unstructured approach to group counseling concerning test anxiety was more beneficial than a structured approach, especially with highly test anxious students. The guided fantasy technique was structured just enough to allow flexible guidelines for the student to play out his fantasy in his own level of commitment. If the fantasy took the student into too highly an anxious state, he had the option to go back with the help of his relaxation training, to a more relaxed state to try again later to experience the anxious

fantasy situation under more favorable conditions of relaxation preparation. The fact that the guided fantasy technique was followed by an open style group counseling session based on Rogersian theory allowed further use of unstructured group interaction where privacy was honored.

Conclusions

The results of this study compare favorably to past studies which explored use or non-use of the techniques embedded in the guided fantasy used in this study. This study was successful in using a guided fantasy approach with hierarchies for the first time in reducing test anxiety and improving classroom performance. Aside from the hierarchies, relaxation training, and group counseling, the key to the technique, in this author's opinion, was the use of guided fantasy. According to Singer and Mahoney (1981) 80% of their subjects between the ages of 17 and 34 depressed at least once daily. Depressing has been associated with high anxiety, greater creativity, and need achievement by these authors. These subjects 17 to 25 years old showed even more advantage of these factors. The guided fantasy approach could be used to take advantage of this creativity and ability to regress (fantasize) to help lower test anxiety and improve grades. The students of this author's study seemed to enjoy the techniques based on informal reactions during the group counseling sessions.

with this type of student acceptance of a new technique coupled with its ease of training and flexible structure, it offers the counselor a new tool in his repertoire of anxiety reduction techniques. The guided fantasy technique makes use of all the successfully used techniques used in the past along with a new technique of guided fantasy that aims to bond the other problems together. Another advantage of this method is that it is conducted with the group counseling session. This allows time for other problems that confront the student to come to the surface. In this manner, focus is placed on the total student, not solely his responses associated with test anxiety.

The positive effects of these procedures on improvement in academic performance raise a host of questions which may be addressed by future research. What is the minimal amount of guided fantasy treatment required to have any measurable effect on academic performance? What is the effective ceiling on the amount of improvement that can be achieved with the guided fantasy technique, and what amount of training is required to reach this ceiling? How large are the individual differences in responding to guided fantasy? What personality variables are most important in accounting for individual differences?

APPENDICE

APPENDIX I

TEST ANXIETY SELF-REPORT SCALE*

Please fill out the following information:

NAME _____

SEX _____ male _____ female (check one)

PHONE NUMBER (____) _____

AT WHAT TIME IS IT MOST DIFFICULT TO BE CALLED? _____

Do you expect to be also enrolled in the Spring 1976 semester?
 _____ yes _____ no

Dear Student,

I am working on a project to help students perform better on examinations. It would be of great benefit to me if you could respond to the following six questions as best you are able.

CHOOSE ONE PRICE

1. In my opinion Washburner Community College has served my educational needs about as well as any other college. AGREE _____ DISAGREE _____
2. I am somewhat apprehensive or nervous about how I will do in one or more courses I am taking this semester. AGREE _____ DISAGREE _____
3. I feel that Washburner Community College is concerned about its students. AGREE _____ DISAGREE _____
4. In my experience, classroom tests do not adequately indicate the amount I know about a subject. AGREE _____ DISAGREE _____
5. I get more uptight during in-class examinations than when I do a take home examination or a report. AGREE _____ DISAGREE _____
6. For a lot of reasons I do not perform well on standardized tests. AGREE _____ DISAGREE _____

*This scale did not appear on the student's copy.

APPENDIX II

TELESCRIPT FOR FIRST JUNE 1961

(to be read slowly, pausing between sentences,
with longer pauses between paragraphs.)

This is a fantasy approach that may give you some new insights into your thoughts and feelings. It is nothing mysterious. You will not be hypnotized or asleep. You will be fully aware of what is happening. It is usually best if you relax and close your eyes.

I will give you a fantasy situation to consider. The important thing is to let your imagination go where it wants to as it develops the experience. Do not try to make it go where you think it ought to. Try to visualize and fully sense the scene. I may make suggestions from time to time, but you are free to reject them.

Be sure to let yourself really experience the feelings you have. Be not be surprised if you feel intense emotions. Let yourself really feel them.

Keep in mind that you are in full control of the situation. Even though your imagination is letting you sleep, it is doing so because you are letting it. You can stop the fantasy anytime you want. You will experience emotions only because you are letting yourself experience them. Fantasy is a private experience. When you are asked to describe a scene of a feeling, it is important only to imagine this and not to respond too loud. And remember, nothing is possible in fantasy.

Imagine you are in your place of study. Try to describe this place of study to yourself. What details do you notice in the room? Are you seated in a chair? If so, how can you describe it? Are your feet and hands being in this place? Get in touch with your muscles. Are they relaxed or tense? Does this place make you feel as calm as sunlight? How do your other senses pick up the details of this place where you study? Is there a special smell in there a certain texture to the objects you know? Are there any sounds? Try to get in touch with all these sensations. Let yourself experience the total effect of this place. Can you imagine a class place to study? A

place where you could feel more at ease? Can you describe how the chair would feel? Would the desk be different, perhaps an old fashioned roll top desk with lots of wooden compartments? Or could it be a desk with a red leather top? Try to design this place in your mind. Can you get some good feelings about this imaginary place?

Now go back to your actual place of study. How does it seem in comparison to your imaginary place?

I would like you to picture yourself reading a regular assignment. How do you feel while reading? Of what are you aware while reading? Is it easy to concentrate on the words? Do you think about other things? Describe those other thoughts to yourself. Do you think about a future test on this material? Or so does it make you tense and uptight? How do you feel about this? When you read a regular assignment what are some of the things you do? Do you underline? Do you take notes? Anything else? Are you at ease while reading? Do you feel secure reading in your place of study? Would you feel better if you were in your imaginary place of study. Would you be more relaxed? Can you imagine yourself reading something interesting in this imaginary place of study? Does this make you feel better than reading an assignment in your real place of study? If so, take a few minutes and try to describe to yourself why you feel better. Get in touch with your body and feel if it is relaxed.

Now, when you feel you have completed, slowly get in touch with where you are now. When you feel it is time, slowly open your eyes, stretch, and quietly sit up.

APPENDIX II (Continued)

EXERCISES FOR SECOND AND THIRD YEARS

(To be read slowly, pausing between sentences;
with longer pauses between paragraphs.)

This is a fantasy approach that may give you some new insights into your thoughts and feelings. It is nothing mysterious. You will not be hypnotized or asleep. You will be fully aware of what is happening. It is usually best if you relax and close your eyes.

I will give you a fantasy situation to consider. The important thing is to let your imagination go where it wants to as it develops the experience. Do not try to make it go where you think it ought to. Try to visualize and fully sense the scene. I may make suggestions from time to time, but you are free to reject them.

Be sure to let yourself really experience the feelings you have. Do not be surprised if you feel intense emotions. Let yourself really feel when.

Keep in mind that you are in full control of the situation, even though your imagination is taking you along; it is doing so because you are letting it. You can stop the fantasy anytime you want. You will experience emotions only because you are letting yourself experience them. Fantasy is a private experience. When you are asked to describe a scene or a feeling, it is important only to imagine this and not to respond out loud. And remember, anything is possible in fantasy.

Now imagine that you are in class. Describe to yourself what is happening. What is the general overall feeling you receive from being in class? Are you relaxed or uptight? Get in touch with your feelings. Try to determine what it is that either makes you feel as calm or tense. Perhaps the instructor is influencing your feelings. Maybe the students are causing you to react emotionally. Whatever it may be, try to get in touch with what it is about this class situation that makes you feel the way you do.

Think of a class you had in the past where you felt totally relaxed and secure. It might have been such a

your childhood. If this is difficult try to imagine a place in the future. What are some of the things that make you feel more relaxed and secure in this expected class? Describe to yourself how you feel. To what do you attribute this feeling?

Now place yourself back in your original class situation. Now you are seated in class and the instructor announces that a major examination will be given in two weeks. What is the immediate effect you felt upon hearing this? Did you become tense? Did your pulse become deep? How did this test announcement affect you? When you heard the announcement what did you imagine? Describe to yourself what you imagined. Do you feel it is natural for you to become tense upon hearing a test announcement? Is there anything you can do about not sitting upon when a test is announced? Perhaps instead of fear you could see the situation as a challenge or a chance to do something well. Is there any other way you could see this situation other than fear? What alternatives can you perceive? Describe them to yourself.

Suppose you were back in that imaginary class where you felt secure. Would the test announcement have any different effect on you? Say in words with how you would feel in that situation. Describe it to yourself in detail.

Now review the feelings you have experienced in this activity. These feelings should have been explored. Your reaction to a test announcement in two weeks was also experienced. Can you put these two experiences together and draw some conclusions from your feelings? Think about this for a few minutes. Try to think of any good feelings that resulted.

Now, when you feel you have completed, slowly get in touch with where you are now. When you feel it is time, slowly open your eyes, stretch, and quietly sit up.

APPENDIX II (Continued)

TYPIEWRIter FOR TElR AUDIO TAPE

(To be read slowly, pausing between sentences,
with longer pauses between paragraphs.)

This is a fantasy approach that may give you some new insights into your thoughts and feelings. It is nothing mysterious. You will not be hypnotized or asleep. You will be fully aware of what is happening. It is equally safe if you relax and close your eyes.

I will give you a fantasy situation to consider. The important thing is to let your imagination go where it wants to as it develops the experience. Do not try to make it go where you think it ought to. Try to visualize and fully assess the scene. I may make suggestions from time to time. But you are free to reject them.

Be sure to let yourself really experience the feelings you have. Do not be surprised if you feel intense emotions. Let yourself really feel them.

Keep in mind that you are in full control of the situation. Even though your imagination is taking you along, it is doing so because you are letting it. You can stop the fantasy anytime you want. You will experience emotions only because you are letting yourself experience them. Fantasy is a private experience. When you are asked to describe a scene or a feeling, it is important only to imagine this and not to respond and react. And remember, anything is possible in fantasy.

Now imagine it is two days before an important examination. You are in your usual state of study and preparing for the upcoming examination. What are some of the feelings you experience in this situation? Describe them to yourself. How do you react to these feelings? Were these feelings more intense than the last examination two weeks ago? What word would you use to describe your present feelings? What are some of the thoughts you have now that the examination is just two days away?

Imagine that you are able to turn back the clock a week. How would you use this additional time to help you in the upcoming examination? Would it make a difference?

Would you feel more relaxed if you had additional time to prepare? Can this information help you in the future?

Let us say the examination is actually two days away. Considering those two days, what constructive ideas can you imagine to allow you to spend your time more effectively? Discuss these with yourself. Can you use some of these ideas for your next test? Think of a specific course where you might be able to try out these suggestions.

Do you feel more relaxed thinking about new ways to prepare for an important examination? Do your ideas make you feel at least that you are working out some of the business of studying? Do you feel more secure knowing that you are able to discover new ideas to help prepare for tests?

Try to review the thoughts and ideas of the last few minutes. What are some of the conclusions you feel you have made? How do you feel about them? How did your muscles react to your feelings? Were you able to relax more when you came to more workable conclusions? Now get in touch with your feelings about this for a few minutes.

Now, when you feel you have completed, slowly get in touch with where you are now. When you feel it is time, slowly open your eyes, stretch, and quietly sit up.

APPENDIX II (Continued)

TECHNIQUE FOR FORMING ACID TAPE

(To be read slowly, pausing between sentences,
with longer pauses between paragraphs.)

This is a fantasy approach that may give you some new insights into your thoughts and feelings. It is nothing supernatural. You will not be hypnotized or asleep. You will be fully aware of what is happening. It is usually best if you relax and close your eyes.

I will give you a fantasy situation to consider. The important thing is to let your imagination go where it wants to as it develops the experience. Do not try to ride it or where you think it ought to. Try to visualize and fully sense the scene. I may make suggestions from time to time, but you are free to reject them.

We want to let yourself really experience the feelings you have, be not be surprised if you feel intense emotions. Let yourself really feel them.

Keep in mind that you are in full control of the situation. Even though your imagination is taking you along, it is doing so because you are letting it. You can stop the fantasy anytime you wish. You will experience emotions only because you are letting yourself experience them. Fantasy is a private experience. When you are asked to describe a scene or a feeling, it is important only to imagine this and not to respond out loud. And remember, anything is possible in fantasy.

Imagine it is the night before an important examination. We have known about this examination for two weeks. You are now in your place of study. This is the same place that you have studied for the past two weeks. Do you feel any better about this place now? Remember how this place is any different now that there is a test tomorrow. Perhaps it is a worse place. Perhaps it makes you feel up-tight. Discuss with yourself your feelings about this place the night before the examination.

Now let us look at where you are in your studying. How confident are you about tomorrow? Is your body relaxed or tense? Do you feel something of do you look forward to

using your knowledge? Look into yourself and describe your feelings about tomorrow.

On this last night, what do you see as important for you to do to prepare for the examination? Just a simple review? Read over your notes? Run through last year's notes and work practice questions? Make lists of important things to remember? Imagine some of your own ideas on how to spend this night. Take a few minutes to describe these to yourself.

Now review some of the thoughts and ideas you have uncovered concerning this last night's studying for tomorrow's examination. How do you feel upon imagining this night? Are you more relaxed now than you decided upon going for studying? Are you more confident? Try to think of some positive feelings you have as a result of imagining this night.

Now, when you feel you have completed, slowly get in touch with where you are now. When you feel it is time, slowly open your eyes, stretch, and quietly sit up.

Activity II (continued)

STUDENT SCRIPT FOR FIFTH READER TAP

(To be read slowly, pausing between sentences,
with longer pauses between paragraphs.)

Fantasy is a fantasy approach that may give you some new insights into your thoughts and feelings. It is nothing mysterious. You will not be hypnotized or asleep. You will be fully aware of what is happening. It is usually best if you relax and close your eyes.

I will give you a fantasy situation to consider. The important thing is to let your imagination go where it wants to do it. Develop the experience. Do not try to make it go where you think it ought to. Try to visualize and fully sense the scene. I may make suggestions from time to time, but you are free to reject them.

Be sure to let yourself really experience the feelings you have. Do not be surprised if you feel intense emotions. Let yourself really feel them.

Keep in mind that you are in full control of the situation. Even though your imagination is taking you along, it is doing so because you are letting it. You are using the fantasy anytime you want. You will experience emotions only because you are letting yourself experience them. Fantasy is a private experience. When you are asked to describe a scene or a feeling, it is important only to imagine this and not to respond with fact. And remember, anything is possible in fantasy.

Imagine now that you are sitting in class waiting for an important examination to be passed out. What details do you see in the room this day? Is there anything different about this classroom on the day of the examination? Describe to yourself what you imagine. Are students more quiet or noisy than usual? Is there an air of confidence or fear, or both? Take some time to relate to what is happening in this classroom.

You have studied for the past two weeks for this important examination. Do you feel secure and prepared? If not,

tell yourself how you feel. Are you relaxed or tense? Get in touch with how your stomach feels. As the examination is passed over, do you feel a certain relief that you have prepared all you can? Or do you wish you had another day in which to study? Perhaps for the next examination you could prepare for it a day in advance to give yourself the extra day. How do you feel about that?

While the examination is being passed over, you might want to think about how good it will feel upon completing the examination. Whether you do well on the examination or not, you will know a little more about how to study. You might also learn something about the instructor. What kind of questions he asks. Things to remember for the next examination. What areas to concentrate on for the future.

What other positive things can you imagine upon completion of the examination? Review these ideas for a few minutes.

Now, when you feel you have completed, slowly get in touch with where you are now. When you feel it is time, slowly open your eyes, stretch, and quickly sit up.

APPENDIX III

FIVE SCENARIO SITUATIONS²

1. You are in your place of study. You are reading a regular assignment.
2. You are at class. The instructor announces a major examination in two weeks.
3. It is two days before the examination. You are in your usual place of study and are preparing for the upcoming examination.
4. It is the night before the examination. You are in your place of study and are studying for the examination.
5. You are sitting in the examination room waiting for the book to be passed out.

²DeFries-Gower (1974).

APPENDIX 11
SUMMARY OF RAW DATA

<u>Station #</u> ^a	<u>Age</u> ^b	<u>Sex</u> ^c	<u>Footwear</u> ^d	<u>Footwear</u> ^e
1	16-18	16-18	L	0
2	16-1	15-20	R	1
3	12-15	10-20	R	0
4	15-20	12-15	R	1
5	15-8	11-20	R	0
6	17-18	18-20	R	1
7	16-17	20-18	L	1
8	17-15	17-18	R	0
9	18-13	21-16	L	1
10	15-18	20-13	L	0
11	0-0	13-18	R	0
12	18-13	18-20	L	1
13	15-8	18-20	R	0
14	15-13	19-17	L	1
15	13-11	9-18	R	1
16	18-11	18-17	L	1
17	9-5	9-8	R	0
18	12-8	13-15	L	1
19	16-7	18-17	R	0
20	11-8	20-18	L	1
21	16-11-18	20-17-19	L	1-0
22	13-8-10	15-9-11	L	0-0
23	14-10-14	21-10-16	R	0-0
24	11-13-12	23-20-20	L	0-1
25	17-17-18	15-12-14	L	0-0
26	15-9-11	18-18-18	L	1-1
27	17-18-18	20-13-20	L	1-1
28	19-18-20	18-18-18	R	1-0
29	14-18-21	17-11-18	L	0-1
30	12-13-14	15-18-20	L	1-0
31	18-20	20-18	L	0
32	11-8	11-20	R	1
33	15-11	18-18	R	0
34	12-13	18-13	L	1
35	17-17	24-17	L	1
36	18-18	18-8	R	1
37	24-14	21-13	L	0
38	17-13	17-18	R	1
39	18-11	20-13	R	1
40	14-15	17-20	R	0

APPENDIX IV (continued)

<u>Subtotal^a</u>	<u>AST^b</u>	<u>TAQ^c</u>	<u>Self-Rating^d</u>	<u>Performance^e</u>
41	18-19	28-18	L	1
42	15-17	15-15	H	2
43	8-7	17-12	H	3
44	18-14	25-22	L	1
45	18-18	17-18	L	2
46	18-12	23-18	L	2
47	17-17	21-20	H	1
48	15-13	24-27	H	2
49	18-12	28-18	H	2
50	15-17	22-19	H	1

- ^aNumbers 1 through 14 represent group I
 Numbers 15 through 20 represent group II
 Numbers 21 through 26 represent group III
 Numbers 27 through 40 represent group IV
 Numbers 41 through 52 represent group V

^bAST represents Audiotape Analysis Test protocol and patients(S)

^cTAQ represents Test Anxiety questionnaire protocol and patients(S)

^dL represents low group Self-Rating rating for Anxiety
 H represents high group Self-Rating rating for Anxiety

^ePerformance represents amount of change in grades from before to final in all courses

APPENDIX B

MEAN SCORES AND STANDARD DEVIATIONS ON TAG

Group	N	Pretest Mean		Posttest Mean	
		(Standard Dev.)		(Standard Dev.)	
1	18	21	(5.03)	NA	NA
2	18	28.4	(8.58)	NA	NA
3	18	21.2	(8.19)	25.3	(4.82)
4	18	22.2	(3.89)	NA	NA
5	18	21.2	(3.88)	NA	NA
1+2	36	24.4	(4.71)	NA	NA
3+5	36	19.8	(3.48)	NA	NA

MEAN SCORES AND STANDARD DEVIATIONS ON APT

Group	N	Pretest Mean		Posttest Mean	
		(Standard Dev.)		(Standard Dev.)	
1	20	15.5	(3.83)	NA	NA
2	20	15.5	(3.18)	NA	NA
3	20	14.4	(2.87)	14.5	(4.88)
4	20	15.8	(2.54)	NA	NA
5	20	15	(2.78)	NA	NA
1+2	40	15.5	(2.88)	NA	NA
3+5	40	13.85	(2.92)	NA	NA

APPENDIX VI (continued)

Independent t-tests to determine the
equality of variances 1 through 6

Dependent Test in	Groups level- var	t pro- test	df varian	t pro- test	df varian	level of statist	level of statist
mean	1 vs 2 ¹	-	-	.044	18	-	.95
mean	2 ² vs 3	-	-	.204	18	-	.90
mean	2 ³ vs 4	-	-	.090	18	-	.93
mean	1 vs 2 ³	-	-	5.8	18	-	.99
mean	2 ³ vs 4	-	-	1.074	18	-	.16
mean	2 ⁴ vs 5	-	-	.044	18	-	.95

- 2¹ - The first table that the control group took at the study lesson.
- 2² - The second (middle) that the control group took at the study lesson.
- 2³ - The last table that the control group took at the study lesson.
- * means within 5-5-5 falls to verify that, showing the same population.

APPENDIX B.11

POINT BISECTAL CORRELATIONS COMPARING JAWBAY LINGS TO CHARGE (PRE+CHRG POSTEST) IN TEST ABILITY INSTRUMENT

Group(s)	Test	r _{pb1}	t	df	Level of Significance
1	ABE	-.549	-2.338	8	.05
2	ABE	-.215	-.888	8	.05
3	ABE	-.398	-1.268	8	.05
4	ABE	-.377	-1.151	8	.05
5	ABE	.06	.06	8	.05
1+2	ABE	-.238	-.968	18	.05
3+5	ABE	-.166	-.714	18	.05
1+2+3+4+5	ABE	-.181	-.737	48	.10
1	BAC	-.386	-1.488	8	.10
2	BAC	-.329	-1.386	8	.05
3	BAC	-.386	-1.509	8	.05
4	BAC	-.183	-.738	8	.05
5	BAC	.488	1.989	8	.10
1+2	BAC	-.334	-1.318	18	.05
3+5	BAC	-.379	-1.537	18	.10
1+2+3+4+5	BAC	-.213	-.861	48	.05

Note - Jawbay level was scored simply as high or low.

APPENDIX 4111
COMPARISON OF NET CHANGES
IN CLASSROOM OBSERV^a

Group	n	Mean Change on Obs 134	s	SE	Level of Signifi- cance
1	10	1.4	0.78	.25	.005
2	10	-.8	0.87	.27	.001
3	10	-.5	0.80	.25	.01
4	10	1.0	0.74	.23	.001
5	10	-.6	0.71	.22	.001
1+4	20	1.2	0.73	.17	.0005
2+5	20	-.6	0.85	.19	.0005

^aFor a given student, a change from A- to A or B to B+ between sessions and those counted as one grade increment. These grade increments (or decrements) were assigned for each student within each group.

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BIOGRAPHICAL SKETCH

Gregg K. Gordon was born and raised in the suburbs of New York City. He was premedical student at American International College where he received his B.S. in biology. In 1972 he received his M.A. with a major in counseling from Fairfield University.

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He is married with one child and is living in upstate New York.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


Robert D. Butler, Chairman
Distinguished Service Professor,
Council on Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


John L. Kistner, Jr.
Professor of Municipal Administration

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.


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August, 1978


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